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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,564	06/25/2003	Bernard Gordon III	PCI 02.01	5489

7590 02/10/2005

LAW OFFICE OF DALE F. REGELMAN, P.C.  
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Tucson, AZ 85714

EXAMINER
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CHOI, LING SIU

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/603,564	<b>Applicant(s)</b> GORDON ET AL.	
	<b>Examiner</b> Ling-Siu Choi	<b>Art Unit</b> 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 4-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Election/Restriction***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1 and 2-3, drawn to a polymeric material A (polymer 2 = polyolefin), classified in class 526, subclass 348.
  - II. Claims 1 and 4-5, drawn to a polymeric material B (polymer 2 = PEO), classified in class 526, subclass 307.5.
  - III. Claims 1 and 6-7, drawn to a polymeric material C (polymer 2 = polyester or polyamide), classified in class 526, subclass 303.1.
  - IV. Claims 8-10 and 11-12, drawn to a method I to prepare the polymeric material A, classified in class 526, subclass 219.5 or 227.
  - V. Claims 8-10 and 13-14, drawn to a method I to prepare the polymeric material B, classified in class 526, subclass 219.5 or 227.
  - VI. Claims 8-10 and 15-16, drawn to a method I to prepare the polymeric material C, classified in class 526, subclass 219.5 or 227.
  - VII. Claims 17 and 18-19, drawn to a method II to prepare the polymeric material A, classified in class 525, subclass 383.
  - VIII. Claims 17 and 20-21, drawn to a method II to prepare the polymeric material B, classified in class 525, subclass 383.
  - IX. Claims 17 and 22-23, drawn to a method II to prepare the polymeric

material C, classified in class 525, subclass 383.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I, II, and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions relate to different polymeric materials.

Inventions (IV and I), (V and II), or (VI and III) are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the polymeric material as claimed can be made by another and materially different process such as a process to graft poly(2-alkyl oxazoline) with a polymer.

Inventions (VII and I), (VIII and II), or (IX and III) are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the polymeric material as claimed can be made by another and materially different process such a process to copolymerize a 2-polymer oxazoline.

Inventions (IV, V, VI) and (VII, VIII, IX) are unrelated. Inventions are unrelated if

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it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions relate to different processes.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. Dale F. Regelman on January 25, 2005, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-3. Affirmation of this election must be made by applicant in replying to this Office action. Claims 4-23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

**6. The following is a quotation of the second paragraph of 35 U.S.C. 112:**

**The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

7. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, the symbols of "n" and "m" shown in the structure formula causes indefiniteness because they are not defined.

***Claim Rejections - 35 USC § 102***

**8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:**

**A person shall be entitled to a patent unless --**

**(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.**

9. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Chou (US 4,709,039), as evidenced by George Odian [Principles of Polymerization, 3<sup>rd</sup> edition].

The present invention relates to a polymeric material in the general formula of



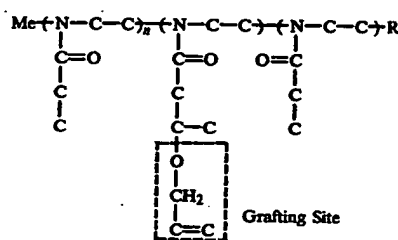
Wherein  $\text{R}_1 = [\text{hydrogen, methyl, ethyl, and propyl}]$

$\text{X} = [\text{acetate, p-tosylate, halide, sulfate, triflate, and mixtures thereof}]$

$\text{POLYMER 2} = \text{a water-insoluble polymeric material having a number average molecular weight in excess of 5,000}$

(summary of claim 1)

Chou discloses a poly [2-ethyloxazoline-co-2(2-allyloxy-1-methylethyl)oxazoline] grafted with polyethylene or polystyrene, which is obtained by the steps of (a) condensing 2-(3-hydroxy-2-propyl)oxazoline and allyl chloride to give 2-(2-allyloxy-methylethyl)oxazoline [AO] according to the Williamson ether reaction, (b) copolymerizing 2-ethyloxazoline [EO] and AO to give poly [EO-co-AO],



and (c) grafting poly[EO-co-AO] with polyethylene or polystyrene to result in the graft copolymer. The polyethylene or polystyrene reads on a water-insuble polymer. It is noted that Chou is silent on the number average of molecular weight of polyethylene or polystyrene. In view of "Principles of Polymerization (2<sup>nd</sup> edition)" by George Odian,

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"[T]he minimum useful molecular weight(B), usually in the range 5,000-10,000, differs for different polymers" (page 20, lines 1-2). Thus, the polyethylene or polystyrene in the disclosure of Chou would have the molecular weight in the range of 5,000 to 10,000 for the graft copolymer to be distinguished from the parent copolymer. Thus, the present claim is anticipated by the disclosure of Chou.

10. Claims 2-3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Chou (US 4,709,039) does not teach or fairly suggest a copolymer containing the specific monomeric unit.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Hildebrand (US 5,063,262).

Hildebrand discloses a polymer (2-methyloxazoline-co-2-isopropyloxazoline) (Table 1). However, Hildebrand does not teach or fairly suggest a poly (2-alkyloxazoline-co-2-**polymer** oxazoline).

12. The drawings filed on June 25, 2005 are not accepted because they are not formal.



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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.

*Ling-Siu Choi*

**LING-SUI CHOI  
PRIMARY EXAMINER**

January 25, 2005